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REMARKS

In accordance with the foregoing, the Title of the Invention and claims 6 and 13 have been amended. Claims 1-40 are pending and under consideration.

OBJECTION TO THE SPECIFICATION:

The title of the invention is deemed to not be descriptive. A new title is submitted herein.

REJECTIONS UNDER 35 U.S.C. §112:

Claims 13-22, 29-30 and 33-34 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection is respectfully traversed. The Examiner indicates that the recitation "second order section modulus" is unclear. However, "section modulus" is a known term, as indicated by the attached excerpt from the *McGraw-Hill Dictionary of Scientific and Technical Terms* (5th Ed. 1994). Accordingly, withdrawal of the rejection is requested.

REJECTIONS UNDER 35 U.S.C. §102:

Claims 1, 23 and 39-40 are rejected under 35 U.S.C. §102(b) as being anticipated by Ito et al. (U.S. Patent 5,751,098).

Independent claim 1 recites a compensating unit between the first and second support members being formed of a material having a lower thermal expansion coefficient than that of the first and second resilient support members. In contrast, FIG. 7 of Ito et al. illustrates a flange portion 242 between welded sides 23 of the frame 2. However, the flange portion 242 is made of a same material as the welded sides 23. Specifically, the frame 2 is formed by forming integrally a raw material of 3mm thickness by pressing into a picture frame shape. Ito et al., Column 7, lines 56-58. This reference further discloses a high expansion plate 4. However, this element is not between the welded sides 23, but is instead below the flange portion 242. Furthermore, this high-expansion plate does not have a lower thermal expansion coefficient

than the other elements of the frame 2.

Independent claim 23 recites a compensating unit so that the tension of the mask is transferred to the compensating unit during annealing of the frame and the mask and then the tension is re-transferred from the compensating unit to the mask after cooling, thereby maintaining an initial tension of the mask. As discussed above, the flange portion 242 of Ito et al. does not achieve this result. Independent claim 39 is similarly patentably distinguishable from Ito et al.

Accordingly, withdrawal of the rejections is requested.

Claims 1, 23 and 39-40 are rejected under 35 U.S.C. §102(e) as being anticipated by Diven et al. (U.S. Patent 6,590,326).

Independent claim 1 recites that the compensating unit is “connected” between the first and second support members. These features are illustrated, for example, in present FIG. 3, which illustrates the compensating unit 130 connected between the first support member 121 and the second support member 122. In contrast, the low expansion brace 308 of Diven et al. is connected between the frame element 324 and the tribox 310. Diven et al., FIG. 3. The brace 308 is not connected between first and second ones of the blades 302.

Independent claim 23 is similarly patentably distinguishable from Diven et al.

Independent claim 39 recites first and second support members, first and second resilient support members and that the tension is transferred to the compensating unit. However, Diven et al. teaches that tension is transferred to a tribox 310. The triboxes 310 are between the blades 302. Thus, there is no element of Diven et al. corresponding to the claimed resilient support members.

Accordingly, withdrawal of the rejections is requested.

REJECTIONS UNDER 35 U.S.C. §103:

Claims 6-9, 11, 13-15, 18-21, 25, 27-30, 32 and 34-35 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ito et al.

As discussed above, independent claims 1, 23 and 39 are patentably distinguishable from this reference. With respect to independent claim 13, this claim is similarly patentable

over Ito et al.

Claims 3, 16, 17, 24 and 36-38 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ito et al. as applied to claims 1, 13 and 23 above, and further in view of Ichigaya et al. (U.S. Patent 4,798,992).

The Examiner admits that Ito et al. does not teach or suggest the claimed vibration reduction unit. Instead, the Examiner relies upon Ichigaya et al. However, it is noted that claim 3 recites a vibration reduction unit for the compensating unit. In contrast, Ichigaya et al. teaches springs 161 and 162 which keep a frame 4 free from vibration. Ichigaya et al., Column 8, lines 40-69. However, there is no suggestion to modify this reference to reduce vibration in a compensating unit.

The CAFC has held that "rejection of patent application for obviousness under 35 U.S.C. §103 must be based on evidence comprehended by language of that section, and search for and analysis of prior art includes evidence relevant to finding of whether there is teaching, motivation, or suggestion to select and combine references relied on as evidence of obviousness; factual inquiry whether to combine references must be thorough and searching, based on objective evidence of record." In re Lee 61 USPQ2d 1430 (CAFC 2002). Thus, as pointed out in In re Lee, the record must support motivation, i.e., there must be something in the record pointing out where the recited motivation can be found. However, there is no such motivation, teaching or suggestion in the presently cited references themselves.

Claims 12, 22 and 26 are rejected under 35 U.S.C. §103(a) as being unpatentable over Ito et al. as applied to claims 1, 13 and 23 above, and further in view of Kim et al. (U.S. Patent 6,437,496).

The comments above with respect to Ito et al. also apply here. Accordingly, withdrawal of the rejections is requested.

Claims 2, 4-9, 11, 13-15, 18-21, 25, 27-30, 32 and 34-35 are rejected under 35 U.S.C. §103(a) as being unpatentable over Diven et al.

Dependent claim 6 recites "a first and second pair of first and second brackets extending from respective ends of the first and second support members in facing directions; and a pair of bars each having both ends fixed to the respective pair of first and second brackets." Thus, claim 6 recites a simple structure of the compensating unit including brackets and bars. In contrast, Diven et al. discloses a much more complicated structure, requiring

sizing of the braces 308 such that the triboxes 310 can be rotated to compensate for the expansion of the frame element 324. Diven et al., Column 4, lines 1-3.

Dependent claim 2 recites a similarly simple construction as compared to Diven et al.

In the Office Action, the Examiner states that these features “do not solve any of the stated problems or yield any unexpected result that is not within the scope of the teachings applied.” Applicants respectfully disagree. Although the results of simpler structure and easier manufacturing are well known, the presently claimed structure which achieves these results is not taught or suggested by the references.

Accordingly, withdrawal of the rejections is requested.

Claims 3, 16, 17, 24 and 36-38 are rejected under 35 U.S.C. §103(a) as being unpatentable over Diven et al. as applied to claims 1, 13 and 23 above, and further in view of Ichigaya et al. Claims 12, 22 and 26 are rejected under 35 U.S.C. §103(a) as being unpatentable over Diven et al. as applied to claims 1, 13 and 23 above, and further in view of Kim et al.

The comments above also apply here. Accordingly, withdrawal of the rejections is requested.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.


Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 5-25-04

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section line [CIV ENG] A line representing the boundary of a section of land. [GRAPHICS] One of a series of parallel lines indicating a cut surface in a mechanical or architectural drawing. { 'sek-shən ,līn }

section modulus [MECH] The ratio of the moment of inertia of the cross section of a beam undergoing flexure to the greatest distance of an element of the beam from the neutral axis. { 'sek-shən 'māj-ə-ləs }

sector [COMPUT SCI] 1. A portion of a track on a magnetic disk or a band on a magnetic drum. 2. A unit of data stored in such a portion. [CIV ENG] A clearly defined area or airspace designated for a particular purpose. [ELECTROMAG] Coverage of a radar as measured in azimuth. [MATH] A portion of a circle bounded by two radii and an arc joining their end points. [METEOROL] Something resembling the sector of a circle, as a warm sector between the warm and cold fronts of a cyclone. { 'sek-tər }

sectoral harmonic [MATH] A spherical harmonic which is 0 on a set of equally spaced meridians of a sphere with center at the origin of spherical coordinates, dividing the sphere into sectors. { 'sek-tər-əl hār'mān-ik }

sectoral horn [ELECTROMAG] Horn with two opposite sides parallel and the two remaining sides which diverge. { 'sek-tər-əl 'hörn }

sector boundary [ASTROPHYS] The rapid transition from one polarity to another in the interplanetary magnetic field. { 'sek-tər ,bəʊn-drē }

sector disk [PHYS] A device used to reduce the intensity of a beam of light or other electromagnetic radiation by an accurately known amount; in its simplest form, it consists of a circular, opaque disk with one or more sectors cut out of it, rapidly rotating in the path of the beam. { 'sek-tər ,disk }

sector display [ELECTR] A display in which only a sector of the total service area of a radar system is shown; usually the sector is selectable. { 'sek-tər dī ,splā }

sectorized light [NAV] A light having sectors of different colors or of the same color in specific sectors separated by dark sectors. { 'sek-tərd 'līt }

sector gate [CIV ENG] A horizontal gate with a pie-slice cross section used to regulate the level of water at the crest of a dam; it is raised and lowered by a rack and pinion mechanism. { 'sek-tər ,gāt }

sector gear [DES ENG] 1. A toothed device resembling a portion of a gear wheel containing the center bearing and a part of the rim with its teeth. 2. A gear having such a device as its chief essential feature. [MECH ENG] A gear system employing such a gear as a principal part. { 'sek-tər ,gir }

sectorgram See pie chart. { 'sek-tər ,gram }

sector interleave [COMPUT SCI] A sequence indicating the order in which sectors are arranged on a hard disk, generally so as to minimize access times. Also known as sector map. { 'sek-tər 'in-tər ,lēv }

sector map See sector interleave. { 'sek-tər ,map }

sector mark [COMPUT SCI] A location on each sector of each track of a disk pack or floppy disk that gives the sector's address, tells whether the sector is in use, and gives other control information. { 'sek-tər ,mārk }

sector of fire [ORD] An area which is required to be covered by fire by an individual, a weapon, or a unit. { 'sek-tər əv 'fir }

sector scan [ELECTR] A radar scan through a limited angle, as distinguished from complete rotation. { 'sek-tər ,skan }

sector search [NAV] A flight or sailing plan of three legs, the turning points being at equal distances along radial lines from a fixed or moving point. { 'sek-tər ,sərch }

sector structure [ASTROPHYS] The polarity pattern of the interplanetary magnetic field observed during a solar rotation. { 'sek-tər ,strək'tʃər }

sector wind [METEOROL] The average observed or computed wind (direction and speed) at flight level for a given sector of an air route; sectors for over-ocean flights usually consist of 10° of longitude. { 'sek-tər ,wind }

secular [ENG] Of or pertaining to a long indefinite period of time. { 'sek-yə-lər }

secular acceleration [ASTRON] An apparent gradual acceleration of the moon's motion in its orbit, as measured relative to mean solar time. { 'sek-yə-lər ək ,sel-ə'rā-shən }

secular determinant [MATH] For a square matrix A, the determinant of the matrix whose off-diagonal components are equal to those of A, and whose diagonal components are equal

to the difference between those equal to the characteristic polynomial represented by A. { 's

secular equilibrium [NUCLEO] which the parent has such a small been no appreciable change in the time the decay products have

secular perturbation [ASTRON] A motion caused by variations in the

secular trend [STAT] A concept refers to a movement or trend in a of time. Also known as long-time

secular variable [ASTRON] A to have slowly lessened or increased centuries. { 'sek-yə-lər 'ver-ə-ə-t

secular variation [ASTRON] A motion caused by variations in the additional attraction on the earth and from the sun vary during the synodic changes, measured in hundreds of of the earth. Also known as ge

secund [BOT] Having lateral not only. { 'sē ,kənd }

secundine dike [GEOL] A dike hot country rock. { 'sek-ən ,dīn

secure [ORD] To gain possession feature, with or without force, and will prevent, as far as possible, its action. { si'kyūr }

secure visual communications sion of an encrypted digital signal and audio information; the distance feet to thousands of miles.

secure voice [COMMUN] Voice coded, therefore not transmitted i

securinine [PHARM] C₁₃H₁₅N that forms yellow crystals from : at 142-143°C; used to make the insufficiency. { si'kyūr-ə ,nēn }

securite explosive [MATER] A a balanced oxygen content; it is hydrophilic gel and contains oxy explosive, and water. { si'kyūr ,

security [COMPUT SCI] The techniques which restrict access der which data may be obtained electric power system to suitably within that system, including bot

security [ORD] 1. Measures taken from espionage, observation, sat

security [ORD] 2. A condition which results from tenance of protective measures v bility from hostile acts or influen

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